Mr. + Mrs Richard Smucker
(RR) HC 61 Box 6112
Austin Nv. 89310-9001

1.

Yucca Site Charterization
U.S. Dept. of Energy

RECEIVED
JAN 12 2000

EIS000736

Dear Wendy Dixon;

Rather than complain here, we need an applyable solution to a safe way to dispose of "High-level Nuclear Waste".

1 (continues below) I am highly against any repository in Nevada or anywhere on this planet for that matter! I have seen nothing but "Death from Cancer" surrounding this matter, in one form or another.

This seems to me an overcomplicated way to "boil water", put simply.

"Contaminating" the "United States" from one end to the other is not the solution, in my opinion, and I'm sure millions of others on this planet also.

2 #1 I would stop using this method (RIGHT NOW!) for energy production, and get rid of what horrible waste product it has produced.

3 #2. Ship the waste product to the moon or some other planet, via robot piloted space shuttle.

...1 You've let this problem be created;

...1 but please don't put it our backyard!

I believe mankind has done enough to destroy itself. Doesn't anyone understand, this must stop!!!

Or would you rather put a "death sentance" on all humankind as it now exhists.

A very wise man once said seek many for council. This needs very careful thought!!!

For instance; I and my wife once lived in Colorado. Rocky Flats produced "Atomic triggers". Article from the Denver Post". Filters in the lab area, where humans worked, were full of radioactive plutonium dust, and were not changed. So they would work, workers punched holes, with screwdrivers, in them. Every worker in that plant, has or is dieing of some form of cancer. What's wrong with this picture?! I also inclose statements from "the Yucca Mtn. Draft Environmental Impact Statement" sheets.

4 This transport rig I don't think could even turn a corner, not to mention tie up commerice clear acc-

3,

4 cross the country. @ 30 mph..

5 Another question comes to mind. Why?! is their a double standard in this country pertaining to the legal laws?! Its citizens must obey the laws, but the government does not!? An 1989 law was passed prohibiting high-level nuclear waste storage and disposal within the state of Nevada. This discussion for a repository in this state, SHOULD END HERE. Thank you for listening to a tax paying, law abiding citizen of this precious Country.

Very Concerned

Mr & Mrs Richard L Doucher

(3)

EIS000736

YUCCA MOUNTAIN
DRAFT ENVIRONMENTAL IMPACT STATEMENT
Proposed heavy-haul truck shipments

Artist's conception of a heavy-haul truck carrying a rail shipping cask

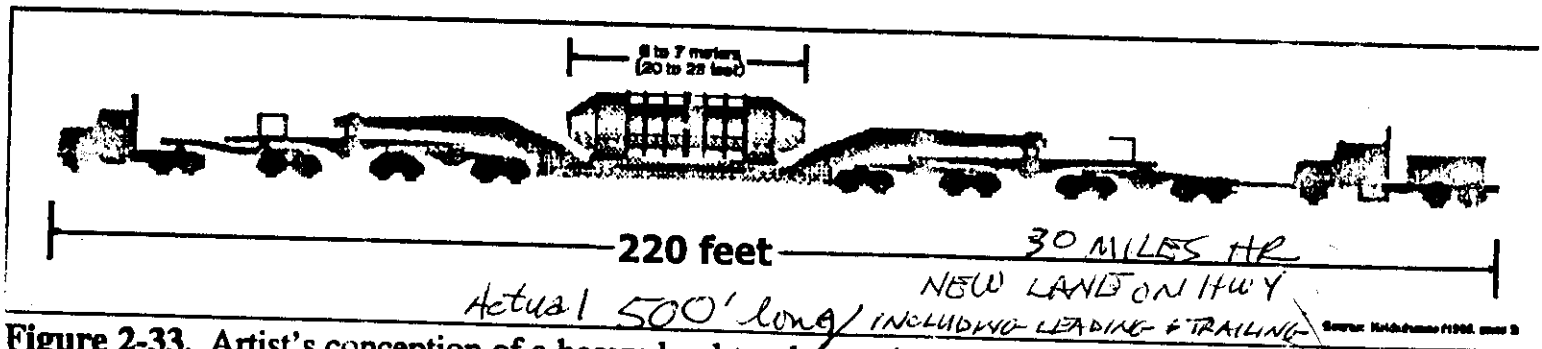
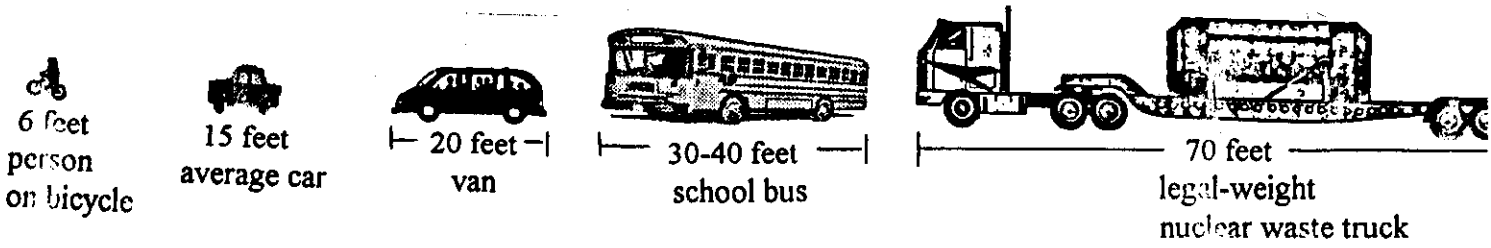


Figure 2-33. Artist's conception of a heavy-haul truck carrying a rail shipping cask.



Comparison in size to other traffic likely to share Nevada highways.

The heavy-haul truck is about 220 feet long, weighs 200,000 pounds unloaded and approximately 400,000 to 450,000 pounds carrying a rail shipping cask. Average speeds would be 20 to 30 miles per hour.

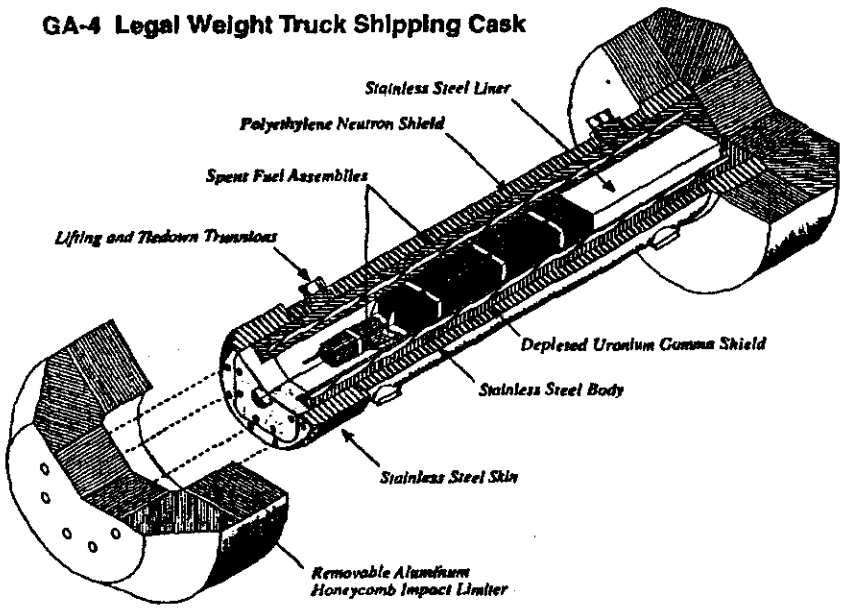
Nevada permits heavy-haul shipments on Monday through Friday (excluding holidays) but only in daylight hours.

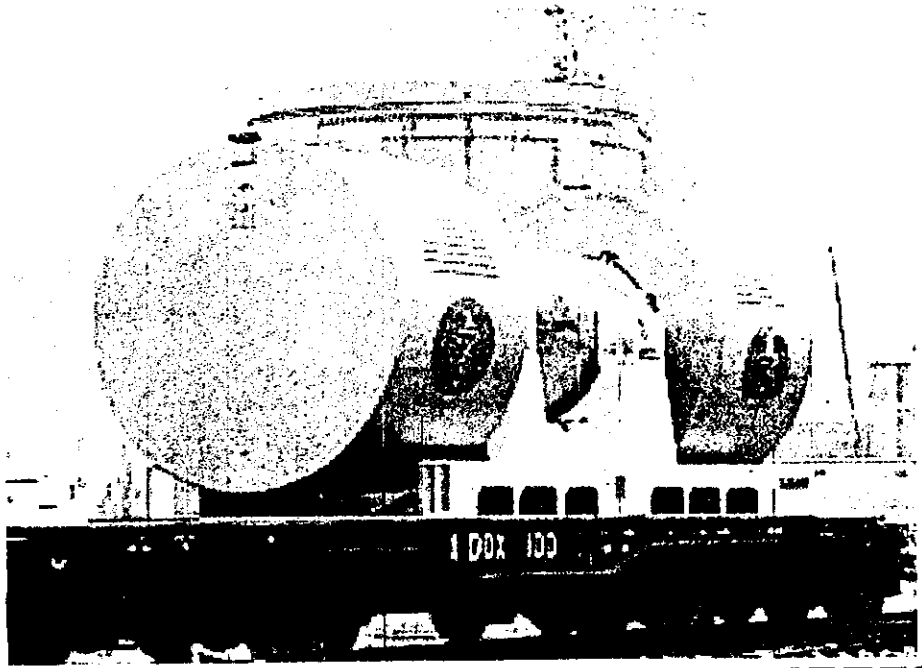
Under the "Mostly Rail Transportation Scenario," with no rail line to Yucca Mountain, there would be 10,815 shipments using heavy-haul trucks and an additional 2,600 legal-weight truck shipments.

What is used to transport the waste ?

EIS000736

General Transportation Cask





The DOE is still working on designs

The adjacent design has the spent fuel capacity (2 metric tons HLW) equivalent in radioactivity of the release of 40 Hiroshima bombs

The GA 4 cask will hold four PWR fuel assemblies; each of which contains enough strontium-90 to contaminate all of Lake Mead (23 trillion gal.) beyond the safe drinking standard.

The DOE currently exploring privitizing the transportation end.

Typical designs weigh between 12 and 30 tons

An average rail car carries 174 pounds of plutonium, and a truck cask 83 pounds of plutonium

Radiation from the casks: neutrons and gamma rays with an allowed dose of 10 mrem (one chest X-ray) per hour at 2 meters from the cask.

The GA4/9 designs have been licensed, but not built or tested.

To date, no transportation cask has had full-scale physical testing. Instead quarter-scale models with computor simulations have been used.

How Will the Waste Come?

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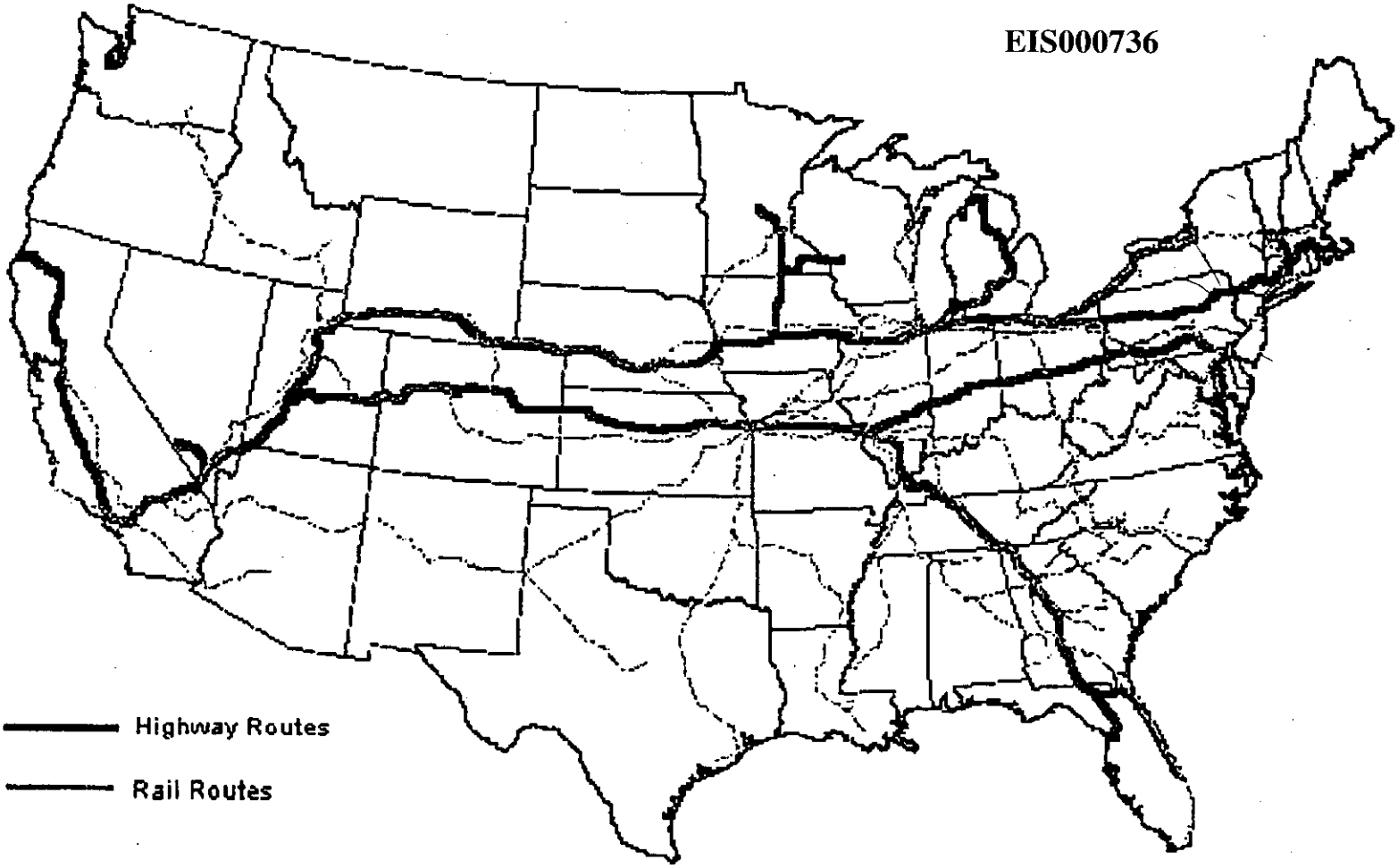

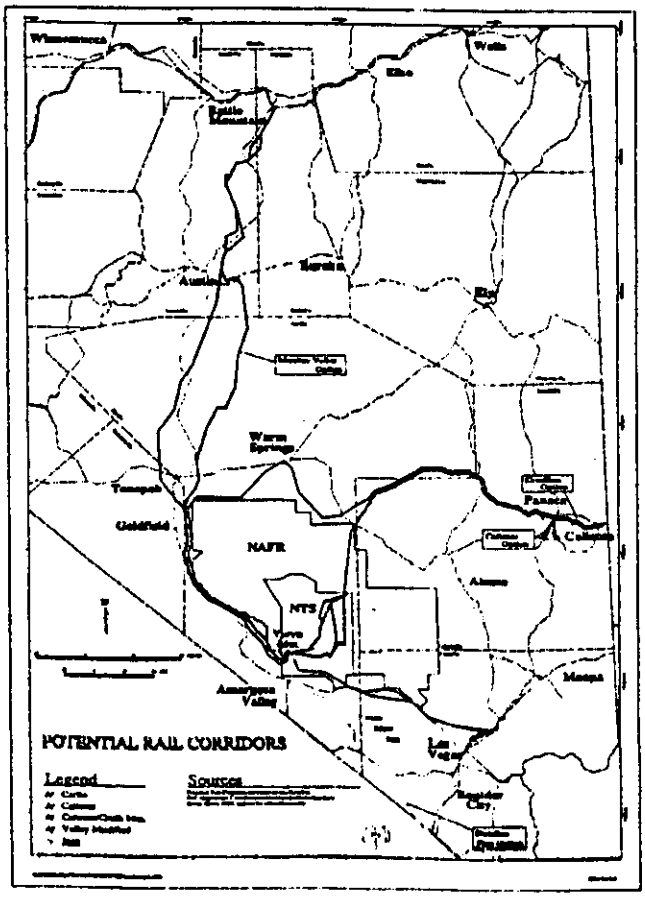

At least 70,000 metric tons of high-level waste would come to Yucca Mtn.

Current NRC shipment estimates:
By truck only: 56,600 to 104,500 depending on cask type used, or by rail only: 15,000 to 20,000

Expected number of accidents:
If 2/3 by rail: 175-355
If 9/10 by rail: 185-250

Under the "truck only" scenerio 15-20 accidents are expected in Las Vegas alone.

Are emergency responders prepared?

SOME BACKGROUND ON THIS EIS BUSINESS

EIS000736

Twelve years after Congress named Yucca Mountain as the only site to be studied for disposal of the nation's high-level nuclear waste, a Draft Environmental Impact Statement (EIS) for the project has been released for public review.

In 1987, Congress abandoned the national site screening process that began in 1983 after passage of the Nuclear Waste Policy Act and picked Yucca Mountain over sites in Texas and Washington in an admitted "political" decision. The Draft EIS (DEIS) now will provide Nevadans with their first opportunity to officially go on record with the Department of Energy (DOE) on whether they think the project should proceed as proposed. The Nevada Legislature went on record in 1989 when it passed a law prohibiting high-level nuclear waste storage and disposal with the state.

The Department of Energy released the Draft EIS for a 180-day comment period at the end of July. It includes an evaluation of the impacts of constructing and operating the repository and the expected long-term consequences of burying the waste beneath Yucca Mountain, adjacent to the Amargosa Valley. This EIS does not consider the need for a repository nor the alternatives to geologic disposal nor the alternatives to the Yucca Mountain site. It also includes a generic analysis of national transportation modes and routes from the 72 commercial reactor sites and 5 Department of Energy waste source sites, in 35 states, to Yucca Mountain. Also, alternative transportation modes, highway routes, and potential rail corridors in Nevada are analyzed in the Draft EIS. National transportation would affect as many as 43 states and come within on-half miles of over 50 million people.

The 1987 Congressional decision to study only Yucca Mountain exempted this EIS from two important requirements that apply to ALL OTHER EIS's written to evaluate proposals that would significantly affect the human environment. In the case of the Yucca Mountain EIS, there is no requirement to consider the need for a repository, or the evaluation of alternatives to a Yucca Mountain repository, such as other sites or other means of disposal. The alternatives that will be considered in the Yucca Mountain EIS are different designs that would determine whether temperatures in the underground repository would exceed the boiling point of water or remain below that temperature. The final EIS should include an analysis of a selected repository design and the impacts of that selected design, including a comparison with reasonable alternatives that were considered. No such analysis is included in the draft.

The Environmental Impact Statement is required by the National Environmental Policy Act (NEPA) for major federal decisions that would significantly affect the environment. The purpose of an EIS is to assist in making informed decisions about proceeding with the proposed action. Through a structured process, impacts of the proposal must be evaluated and compared with expected impacts of realistic alternatives,

including taking no action. This part of an EIS has long been considered "the heart" of the document without which the EIS is useless as decision making tool. The analysis must also evaluate irreversible commitments of resources by the proposal, and any means by which impacts can be mitigated. The Final EIS must include responses to comments received from the public in the hearings as well as in written form.

The National Environmental Policy Act recognizes the importance of public comment and participation in the decision process and requires that public hearings be held in the vicinity of the proposed project. It also requires that an adequate period of time be provided for pubic review and comment. The first hearings on this document are being held eight weeks after release of this very large and difficult document.

According to the Nuclear Waste Policy Act, the Final EIS must accompany the Secretary of Energy's site recommendation to the President. If such recommendation is made, an application for a license to develop a repository at the site will be submitted to the Nuclear Regulatory Commission. The date scheduled for that recommendation, if it is to be made, is July 2001. Also, according to the Act, the State can object the Secretary's recommendation, and the objection stands as a veto unless houses of Congress override the State's objection.

As currently planned the local hearings will have a format that includes an exhibit time, a question period during which members of the public can ask specific questions of the project personnel and finally, when everyone is worn out, the hearing itself in which comments are recorded. Questions and comments voiced other than during the hearing portion of the schedule will NOT be included as part of the official record of the hearing and will receive NO RESPONSE in the Final EIS when it is issued.

This is the most important part of the Yucca Mountain project for the people of Nevada because it determines if the project should proceed. Because it is so vital that everyone who is interested and concerned about Yucca Mountain be on record with their comments, it is important to understand how to effectively participate in the hearings and how to have an impact on the design of the hearings before they begin.

There is assistance for any community where a hearing is planned to prepare for the hearing and for preparing written comments. The State of Nevada is sponsoring workshops (see article, this issue). An initial analysis of the draft will be included in these workshops. The Nevada Nuclear Waste Task Force (see resources, this issue) is available to hold pre-hearing meetings to discuss and plan for the hearings. Citizen Alert is always available to facilitate your participation in the process and will be actively involved in each of the hearings around the state. The important part is to participate and add your voice so that Yucca Mountain is never opened and the answer to the nuclear waste disaster is carefully and safely found without the shroud of political expediency.

FACT SHEET: Rail Transport of High-Level Nuclear Waste to Yucca Mountain

The proposed Yucca Mountain Repository for High-Level Nuclear Waste in southern Nevada is the only site being considered by the federal government for the storage of irradiated fuel rods from the nation's 112 commercial nuclear reactors, Navy ship reactors and private research reactors. Transportation of irradiated rods to this site would involve truck or rail shipments through 43 states, within one half mile of the homes of 50 million people, and through hundreds of major towns. Rail service or a rail right-of-way currently does not exist for Yucca Mountain, but research has continued for a decade to explore that method of travel. Larger casks, and therefore fewer shipments, could be moved by rail rather than by truck..

Background:

In 1990, the Dept. of Energy (DOE) was authorized to conduct a Preliminary Rail Access Study for Yucca Mountain. Several existing and abandoned rail routes were included as route corridor options, although the existing rail beds are often not appropriate for modern trains. The study identified and evaluated ten potential rail route options. The Caliente Route was studied further in 1991, but funding for additional detailed studies has not occurred.

The Yucca Mt. Draft Environmental Impact Statement includes five proposed rail routes (and alternatives), approaching Yucca Mt. from the north, east and west. If final selection was made, additional Environmental Impact Study is required.

Construction of rail lines would not begin until the Repository was licensed by the Nuclear Regulatory Commission, but would then be one of the first priorities. The DOE wants rail lines completed within two years of licensing to haul construction materials for the Repository itself.

Criteria for Considering Routes:

- **Topography**: 2-2.5% maximum uphill or downhill grade; 8 degree horizontal curve;
- **Access for connecting to existing national rail routes** and carrier depots;
- **Land-use incompatibility such as**:
  1) Native Reservations or private development of land, such as ranches, farms or communities;
  2) Environmentally protected areas such as wetlands and flood plains, and endangered species habitat;
  3) Military restricted use such as the Nellis Bombing and Gunnery Range or the Nevada Nuclear Test Site.

Volume: 70,000 metric tons of high-level nuclear waste would come to Yucca Mountain by rail or highway through Nevada.

'Spent' fuel rods is misleading term. 'Irradiated' rods are one million times more radioactive than unused fuel.

Over 20 billion curies of radioactivity would pass through our communities to be stored in the mountain. Each curie is a large unit: 2,224,000,000,000 (2 ¼ trillion) radioactive emissions, or 'counts' per minute.

Current shipment estimates:
By truck only: 56,000-104,500 depending on cask type used
By rail only: 15,000-20,000

Estimated accidents (DOE):
If 2/3 by rail: 175-355
If 9/10 by rail: 185-250
By truck only: 15-20 in Las Vegas alone.

Potential affected area: 50 mile radius

Current rail accidents (RailWatch):
Every 90 minutes, and rising
Toxic spill every 2 weeks

Cost & Environmental Considerations of New Rail Construction:

- **The shortest flattest route** is usually the cheapest, in terms of construction, equipment, operation and maintenance.
- **More rugged routes** might avoid private lands, but require moving more earth, building more bridges and tunnels, and have greater

environmental impacts and conflicts with hunting and restricted-use areas.

- **Valleys would offer the easiest construction** but are often already developed. Rail routes would affect communities and private land owners, rivers and flood plains and precious water sources for wildlife and irrigation for food crops and ranches.
- **"Shared-use" versus "restricted use":** Shared use would allow public carrier use of the rail lines, and share of costs. However, only use restricted for nuclear waste shipments on proposed new rail routes has been studied to date.
- **The National Environmental Protection Act** (NEPA) mandates an Environmental Impact Study which considers air quality, areas of critical environmental concern, cultural resources, prime/unique farmlands, floodplains, Native American religious concerns, threatened or endangered species habitat, drinking and groundwater quality, wetlands and riparian zones, wild and scenic rivers, and wilderness areas.

Primary Impacts of Nuclear-Waste Transportation for Nevada Residents

- **Long Term Economy**: A highly visible and secured rail line carrying extremely deadly material will affect all aspects of Nevada economy: tourism and recreation, the traditional agricultural way of life, mining, and future development and land values. Rail routes under consideration could separate crop fields from farm buildings and divide grazing allotments into unusable segments. Mining transportation routes and existing patent claims could be in direct conflict with rail routes.
- **Short Term Economy**: Construction jobs and use of local services in each community will be seasonal and short-lived, and therefore disruptive to local economies.
- **Emergency Preparedness:** The main effect on county, town and school district officials would be responsibility to prepare for radiological emergencies: equipment, training, facilities and personnel. Health care facilities are far apart. The financial burden on rural counties would be enormous. Long distances and access to remote areas increase response time, and therefore, contamination impacts and clean-up costs. The potential for sabotage must also be considered.
- **Cumulative Radioactive Impacts**: Nuclear Waste Casks emit radiation in low doses all the time. Casks that stopped all emissions would be too heavy to move. Cumulative emissions will result from thousands of shipments over the same routes even if no accidents occur.
- **Protests**: Many people world-wide are opposed to the moving of high-level nuclear materials. In Germany, over 50,000 people turned out to stop similar shipments. Law enforcement is unprepared in rural counties to handle such situations.
- **Proposed rail routes and the 230 square miles proposed for withdrawal for the Yucca Mountain Repository lie within Western Shoshone Treaty lands.** The ratification of the 1863 Treaty of Ruby Valley acknowledges Western Shoshone sovereignty over this land. The Western Shoshone Nation continues to contest and litigate federal appropriation of treaty lands.
- **Surface Water** is scarce in the desert. Streams are small and intermittent, and depend on run-off from higher elevations, carrying potential contaminants from construction and cumulative effects of nuclear waste transportation.
- **Groundwater** is available in valley fills, but is increasingly used for crop irrigation, residential or other development. A few small reservoirs in Eureka County are used for recreation or irrigation.
- **Floodplains** are subject to flood hazards and are unsuitable for construction. For example, existing connecting railways and proposed DOE tracks along the Humbolt River on the Carlin line are in Zone A floodplains (as determined by the Federal Emergency Management Agency).
- **Wetlands** support many species of wildlife and affect the quality and quantity of groundwater. Wetlands are protected from construction or other development-related activities.
- **Wildlife** is plentiful, but dependent on specific and limited habitat. Endangered species such as the bald eagle and protected species such as the cutthroat trout, as well as many species that are hunted for food must be protected from disruption and contamination.

For more information or to find out how to make your opinion heard: call Citizen Alert at (775) 827-4200